

### Remarks/Arguments

Claims 10, 2, 5, 7 and 11 were rejected under 35 USC 112, first paragraph. Applicant requests reconsideration and withdrawal of this rejection for the reasons that follow.

The basis for this rejection appears to be the Examiner's interpretation of "treatment" as implying that the condition will not occur upon administration of the present compound. However, all that is required for "prophylactic" treatment is for the compound to prevent the onset or recurrence of some episodes of pulmonary hypertension. There is no reasonable basis to interpret the present specification as requiring for the prophylactic use of the compound to prevent all pulmonary hypertension in the patent. Even the definition of "prevent" offered by the Examiner does not require no episodes to occur. The only requirement is the prevention of some episodes that would have occurred without the treatment.

The specification clearly teaches that the present compound to have utility as a prophylactic treatment for preventing some episodes of pulmonary hypertension. Moreover, the present specification contains data demonstrating that the present compound reduced hypoxic-induced pulmonary hypertension in rats. In view of such disclosure, it is the Examiner's burden to explain why they doubt the truth or accuracy of statements made in the disclosure and to back up such assertions with acceptable evidence or reasoning. See, In re Marzocchi, 169 USPQ 367, 369-370 (CCPA 1971). The Examiner attempts to meet this burden with conclusory statements relating to the poor prognosis and need for better drugs. However, such conclusory statements provide no rational basis to doubt the present application's clear teaching.

In conclusion, Applicants assert that, as defined in the present specification, the prophylactic use of the present compound to treat pulmonary hypertension merely requires preventing the onset or recurrence of some episodes of pulmonary hypertension. Applicants assert that the present specification clearly teaches the skilled artisan how to do so. Therefore, the present claims are fully enabled. Accordingly, withdrawal of the rejection under 35 USC 112, first paragraph, is requested.

Claims 10, 2, 5, 7 and 11 were rejected under 35 USC 103(a) as being unpatentable over Goncharova et al, Tanabe et al, Zimmermann et al, and Dingli et al. Applicants request reconsideration and withdrawal of this rejection for the reasons that follow.

In response to Applicant's previous arguments that the references do not implicate PDGFR in pulmonary hypertension, the Examiner states: "Goncharova indicates that targeting PI3K-dependent human PVSM cell motility may offer a potential target in blocking development

of hypertension (p. L362, last paragraph); the references **imply** the relationship that exists between PDGFR activity and pulmonary hypertension." (emphasis added) However, such a disclosure in the prior art, at best, merely suggests a field for further experimentation. Nothing in such a disclosure would lead the skilled artisan to have a reasonable expectation of success. Therefore, the standard for a proper rejection under 35 USC 103(a) is not met.

Applicant further argued that Goncharova et al does not teach that imatinib inhibits cell proliferation and motility. In response, the Examiner attempts to demonstrate that rapamycin and imatinib have the same art recognized properties. However, a teaching that imatinib may provide a benefit in indications like arteriosclerosis and restenosis, would not lead the skilled artisan to expect rapamycin and imatinib to be equivalent for the treatment of pulmonary hypertension. Once again, the Examiner's arguments may provide a basis for the skilled artisan to experiment, but nothing in such a disclosure would lead the skilled artisan to have a reasonable expectation of success. Indeed, since rapamycin is not disclosed to inhibit PDGFR, the skilled artisan would not conclude that it is reasonable to substitute imatinib for rapamycin. Therefore, the standards for a proper rejection under 35 USC 103(a) are not met by these arguments.

Applicants further argued that Tanabe et al describes experiments which suggest that PDGFR may play a role in vasculature hypertensive diseases, but it does not reach the conclusion that inhibiting PDGFR may provide a therapeutic benefit for such diseases. The assumption that pulmonary hypertension could be treated by controlling PSVM cell mitogenesis and that PVSM cell proliferation is central to the present rejection. However, Goncharova et al clearly teaches that S6K1 plays a potentially important role in PSVM cell mitogenesis and that PVSM cell proliferation demonstrates high sensitivity to rapamycin, the specific inhibitor of S6K1. See, page L362, second full paragraph. In view of such disclosure, the reference would lead one of skill in the art to try to control pulmonary hypertension with S6K1 inhibitors like rapamycin, not with PDGFR inhibitors. Thus, Goncharova et al does not suggest to treat pulmonary hypertension by the present invention, but clearly leads the skilled artisan to take a different approach.

Tanabe et al discloses experiments which lead the authors to the conclusion: "These results suggest that stretch triggers the overexpression of PDGF-R $\beta$  in vasculature hypertensive diseases. Thus, PDGF ligand receptor system may play a significant role in the development of several hypertensive diseases." However, such a disclosure is merely reporting experiments that suggest a correlation between PDGF-R $\beta$  and vasculature hypertensive diseases, such as pulmonary hypertension. It does not suggest that the inhibition of PDGFR as an appropriate treatment for the condition. At best, it would be understood by the skilled artisan as suggesting

that the connection between hypertensive diseases and PDGFR should be further investigated. However, such a disclosure does not provide the skilled artisan with a reasonable expectation that pulmonary hypertension could be treated by inhibiting PDGFR.

The cited references do no more than suggest a connection between PDGFR and pulmonary hypertension. This is merely an invitation to experiment which provides no basis to have a reasonable expectation that PDGFR inhibition would be useful for the treatment of pulmonary hypertension. Moreover, the combined disclosure of these references would not lead to the present invention, but instead would lead the skilled artisan to experiment with S6K1 inhibitors like rapamycin, not PDGFR inhibitors.

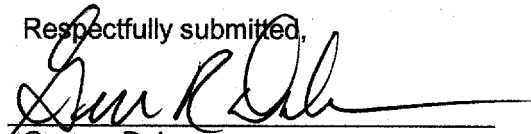
Zimmermann et al and Dingli et al are not alleged to overcome these shortcomings of the primary references. Therefore, Applicant asserts that the present invention is patentable over the combined disclosure of the references and requests withdrawal of the rejection under 35 USC 103(a).

Entry of this response and reconsideration and allowance of the claims are respectfully requested.

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